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EXAMINER

SMITH, SHEILA B

ART UNIT PAPER NUMBER

2681

15

DATE MAILED: 01/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/859,671

Applicant(s)

HWANG ET AL.

Examiner

Sheila B. Smith

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 06 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1, 2, 6, 7, 11-12, 16-17, are rejected under 35 U.S.C. 103(a) as being unpatentable over Salmine (U. S. Patent Number 6,463,286) in view of Riihinen et al. (U.S. Patent Application Number 2002/0072363).

Regarding claims 1, 6, 11, 16, Salmine essentially discloses all of the claimed invention as set forth in the instant application, additionally Salmine discloses a method, exchange, telecommunication system and mobile station for temporary selective national roaming at predetermined network operation conditions in a mobile radio communication system, Salmine further discloses a method comprising the steps of sharing load information between network controllers connected to determining in a first a system switching means (HPLMN), that a certain load condition exists (which reads on overload message) signaling the second system switching means (VPLMN1) that certain load condition exists using a measurement report (which reads on "information provided to let the network know that it has free capacity to handle additional mobile stations at the time of receiving the request message" in column 16 lines 30-33) and in addition, a proposed action (which reads on "granting access to one or more mobile stations MS1-MS4" in column 16 lines 29-31) using an information element indicative (which

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reads on “information provided to let the network know that it has free capacity to handle additional mobile stations at the time of receiving the request message” and “granting access to one or more mobile stations MS1-MS4”) thereof as exhibited in figure 4 and disclosed in column 16 lines 29-45. However Salmine fails to specifically disclose (a) to a core network by a first standard interface (IU) and to each other by a second standard interface (IUR) used for facilitating a macrodiversity function where data is sent via multiple Node Bs to a user equipment, radio network controllers for operating in an environment, and (b) in an environment where data is sent via at least one of multiple Node Bs connected to the first radio network controller and via at least one of multiple Node Bs connected to a second radio network controller.

(a) In the same field of endeavor, Riihinen et al. discloses a control node handover in radio access network. Riihinen et al. discloses a core network (16) by a first standard interface (IU) and to each other by a second standard interface (IUR) used for facilitating a macrodiversity function where data is sent via multiple Node Bs (28) to a user equipment (30), radio network controllers (26) for operating in an environment (which reads on page 1 paragraph [0009] and [0035]).

(b) Riihinen et al. further discloses an environment where data is sent via at least one of multiple Node Bs (28) connected to the first radio network controller (26₁) and via at least one of multiple Node Bs (28) connected to a second radio network controller (26₂) (which reads on page 3 paragraph [0036]).

Therefore, it would have been obvious to one of ordinary skill at the time the invention was made to modify Salmine with (a) to a core network by a first standard interface (IU) and to each other by a second standard interface (IUR) used for facilitating a macrodiversity function

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where data is sent via multiple Node Bs to a user equipment, radio network controllers for operating in an environment, and (b) a in environment where data is sent via at least one of multiple Node Bs connected to the first radio network controller and via at least one of multiple Node Bs connected to a second radio network controller as taught by Riihinen et al. for the purpose of properly balancing the load between 2 network controllers.

Regarding claims 2, 7,12,17, Salmine discloses everything claimed, as applied above (see claim 1) additionally, Salmine discloses action is to restrict data flow as disclosed in column 16 lines 29-30.

2. ***Claims 3-5,8-10,13-15,18-20*** are rejected under 35 U.S.C. 103(a) as being unpatentable over Salmine in view of Frodigh et al. (U.S. Patent Number 6381458).

Regarding claims 3,4,8,9,13,14,18,19 Salmine discloses everything claimed, as applied above (see claim 1) however Salmine fails to specifically disclose interfrequency and intersystem handover.

In the same field of endeavor, Frodigh et al. discloses a method and system for soft handoff control based on access network capacity. Frodigh et al. discloses interfrequency and intersystem handover in column 2 lines 41-45 and 7 lines 33-36

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to improve Salmine by modifying method, exchange, telecommunication system and mobile station for temporary selective national roaming at predetermined network operation conditions in a mobile radio communication system with a interfrequency and intersystem handover as taught by Frodigh et al. for the purpose of stopping of a system caused by the overload.

Regarding claims 5,10,15,20, Salmine discloses everything claimed, as applied above (see claim 1) additionally, Salmine discloses action to release a radio bearer as disclosed in column 16 lines 25-30.

3. Claims 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Salmine (U. S. Patent Number 6,463,286) in view of Lu et al. (U.S. Patent Number 5,734,979) further in view of Dobbins et al. (U.S. Patent Number 5,825,772)

Regarding claims 21 - 23, Salmine discloses everything claimed, as applied above (see claim 1) additionally, Salmine further discloses a method comprising the steps of determining in a first a system switching means (HPLMN), that a certain load condition exists (which reads on overload message) signaling the second system switching means (VPLMN1) that certain load condition exists using a measurement report (which reads on “information provided to let the network know that it has free capacity to handle additional mobile stations at the time of receiving the request message” in column 16 lines 30-33) and in addition, a proposed action (which reads on “granting access to one or more mobile stations MS1-MS4” in column 16 lines 29-31) using an information element indicative (which reads on “information provided to let the network know that it has free capacity to handle additional mobile stations at the time of receiving the request message” and “granting access to one or more mobile stations MS1-MS4”) thereof as exhibited in figure 4 and disclosed in column 16 lines 29-45. However Salmine fails to specifically disclose (a) the similarities of the system switching means to the radio network controller, and (b) a standard interface.

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(a) Especially in view of the fact that Salmine does provide for a system switching means as disclosed in column 16 lines 29-30. Further, the method used by Salmine the system switching means is a second generation partnership project which operates similarly to the radio network controller of the 3 generation partnership project, which more than adequately meet the limitation of the network controller. Additionally, In the same field of endeavor, Lu et al. discloses a cellular base station with intelligent call routing. Lu et al. discloses "any base station configuration and function can be accommodated by selecting processing elements for deployment. For example, FIG. 13 shows various possible functions, such as BTS, BSC, combined BTS/BSC, MSC, combined BSC/MSC, and combined BTS/BSC/MSC, that can be achieved with the invention. A configuration having a single TRX and single TM is possible when the CCPU functions are incorporated in the TRX RTP 262 and TM processor 404 (which reads on the similar functionality of the MSC, BSC and BTS disclosed on column 10 lines 27-37)

(b) In the same field of endeavor, Dobbins et al. discloses a distributed connection-oriented services for switched communications networks. Dobbins et al. discloses a standard interface (which reads on the IEE tagging format disclosed on column 11 lines 64-67) .

Therefore, it would have been obvious to one of ordinary skill at the time the invention was made to apply the technique described by Salmine and Dobbins et al. to the 3-generation partnership project for the purpose of properly balancing the load between 2 network controllers.

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Response to Arguments

2. Applicant's arguments with respect to claims 1-23 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sheila B. Smith whose telephone number is (703)305-0104. The examiner can normally be reached on Monday-Thursday 6:00 am - 3:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh Tran can be reached on 703-305-4040. The fax phone number for the organization where this application or proceeding is assigned is (703)872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)305-0104.



**SINH TRAN
PRIMARY EXAMINER**

S. Smith
December 29, 2003